



STATE OF MAINE  
DEPARTMENT OF ADMINISTRATIVE & FINANCIAL SERVICES  
OFFICE OF INFORMATION TECHNOLOGY  
51 COMMERCE DRIVE  
145 STATE HOUSE STATION  
AUGUSTA, MAINE  
04333-0145

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September 11, 2015

Federal Communications Commission  
Public Safety & Homeland Security Bureau  
445 12<sup>th</sup> Street SW  
Washington, DC 20554

*RE: State of Maine – MSCommNet Site – Spruce Mountain  
Justification for 60 kilometer radius of Operation*

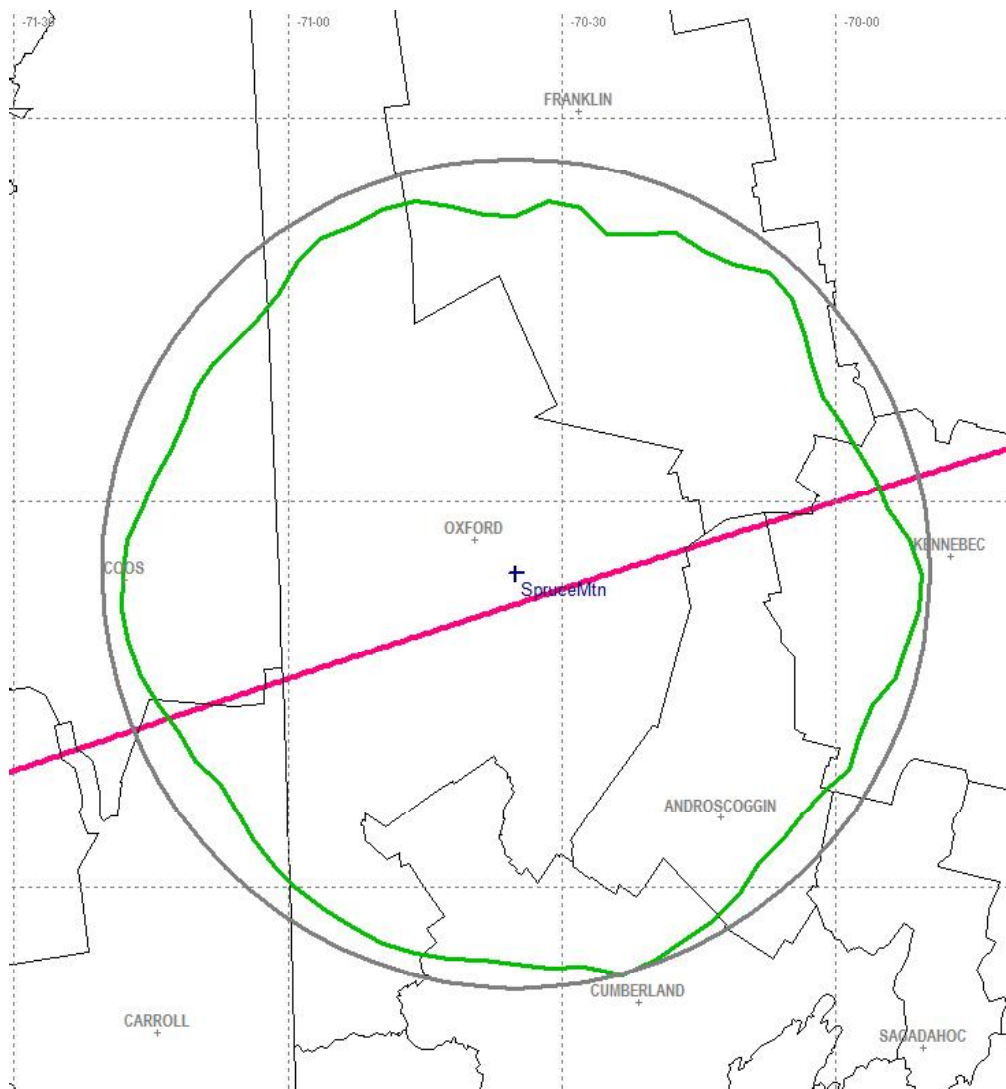
To Whom It May Concern:

The State of Maine Department of Public Safety, and other authorized State of Maine public safety agency radio users currently operate within a 60 kilometer radius of Spruce Mountain, located in Oxford County, Maine as found on FCC Call Signs WQRJ466, WQQS448, WQPS385 and WQQN991 and desires to continue to do so with the frequencies listed on the accompanying application.

The Spruce Mountain site is used for digital two-way radio communications, and is one of 40 radio sites that comprise the Maine State Communications Network (MSCommNet) P25 statewide land mobile radio system. The MSCommNet will provide for critical radio communications covering the wide areas of operation monitored and patrolled by Maine's public safety agencies, and spanning the geographic boundaries of the State.

The Spruce Mountain site provides for two-way radio communications to and from mobile stations operating throughout parts of Oxford, Franklin, Kennebec, Androscoggin, and Cumberland Counties. Areas to the east, south, and northwest of Spruce Mountain represent the primary service areas at greatest distances from the site. The 60 kilometer radius of operation is needed for mobile operations along roadways in these areas.

Figure 1 shows the 60 kilometer radius of operation (Grey) centered on the Spruce Mountain radio site, and the 37 dBu signal strength contour (Green) for the proposed repeater station operation. Line A is represented in Red



**Figure 1 – 37 dBu Service Area vs. 60 km AOP**  
(Grey Circle = 60 km AOP, Green Contour = 37 dBu R6602-F50/50)

The Spruce Mountain radio site design has been engineered for repeater station talk-out and mobile station talk-in operation that is closely balanced. The system design is such that mobiles can and will affiliate with the Spruce Mountain site from some locations at the outer extent of the 60 kilometer radius.

If you have any questions, please contact Robert Isby, Jr. of the Harris Corporation at 518.389.8876 or via e-mail at [Robert.Isby@Harris.com](mailto:Robert.Isby@Harris.com).

Sincerely,  
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